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10/667,414	09/23/2003	Yoshikazu Shibamiya	03500.017590.	1079

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

PARRA, OMAR S

ART UNIT	PAPER NUMBER
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2421

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/667,414	Applicant(s) SHIBAMIYA ET AL.	
	Examiner OMAR PARRA	Art Unit 2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,8,29-32 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,8,29-32 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims **1, 3, 8, 29-32 and 34** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1, 3, 29-31 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoff et al. (hereinafter 'Shoff', Patent No. 6,240,555) in view of Radford et al. (hereinafter 'Radford', Pub. No. 2002/0144276).

Regarding claims 1 and 30, Shoff teaches a receiving apparatus (**26, Fig. 2; col. 4 lines 22-34 or 64, Fig. 4; col. 7 lines 9-18**) with respective method), comprising:
a reception unit (**100, Fig. 5**) constructed to receive image data transmitted through a network different from a broadcast wave (**modem 100 receives supplemental data, i.e. video as in col. 5 lines 13-22, from an ISP through network 2 Fig. 5, different from the broadcast network, i.e. Internet, col. 7 lines 26-35; col. 8 lines 14-18**),

a broadcast signal receiving unit (**tuner 98, Fig. 5**) constructed to receive a broadcast signal from the broadcast wave, (**col. 7 lines 19-25**) wherein the broadcast signal receiving unit derives, from the broadcast signal, broadcast program image data and event information including at least a URL for specifying the receiving image data and size and position information of a display area in which an image is displayed based on the image data received by said reception unit (**a URL, indicating from which server the additional interactive data can be downloaded, col. 5 lines 24-32; col. 6 lines 8-67 and additional layout information are used to obtain the supplemental data, col. 9 line 66-col. 10 line 58 . This data can be transmitted on the EPG data –col. 7 lines 1-8, which one of ordinary skill in the art knows can be transmitted continuously or periodically with the channel data- or through an additional data channel separated from the video data ,col. 9 lines 9-19, for a future user or automatically activation of the URL, col. 9 line 20-col. 10 line 17**);

a control unit for requesting data of the image data specified by the URL from the transmitting apparatus which is a transmission source of the image data, in accordance with the event information received by said broadcast signal receiving unit (**processor 92, Fig. 5 controls the modem when requesting the supplemental information to the server using the received URL, col. 8 lines 4-51; 160, 170-174, Fig. 6**);

an output unit constructed to output to a display apparatus the image data received by said reception unit and the broadcast program image data received by said broadcast signal receiving unit so that the display apparatus displays the image data and the broadcast program image data in a Picture-in-Picture format by the display

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apparatus (**processor 92, Fig. 5, receives both signals from the tuner and modem, and according to the location and size information received with the URL, sizes and sends the mixed signal to the display in a Picture-in-Picture manner, col. 9 line 60-col. 10 line 66 or steps 180 and 182, Fig. 7),**

wherein said control unit is arranged to, when the broadcast program image data received by said broadcast signal receiving unit and the image data received by said reception unit are displayed by the display apparatus in the Picture-in-Picture format, change a display size of each of the image data received by said reception unit and the broadcast program image data in accordance with the size information included in the event information included in the broadcast signal corresponding to the displayed broadcast program (**the sizes of the displayed Picture-in-Picture screen can be modified upon user interaction or upon timing information received along with the URL, steps 182, 184 and 186, Fig. 7; col. 11 lines 48-65) .**

On the other hand, although Shoff teaches requesting the supplemental information, i.e. video, from an internet server based on the received URL information, Shoff does not explicitly teach of receiving transmission mode information as to a plurality of transmission modes of a transmitting apparatus in transmitting the image data, the transmission mode information including different combinations of pixel number information and transmission rate information and selecting one transmission mode from the transmission mode information received by said reception unit.

However, in an analogous art, Radford teaches a system where a user can receive a stream of video from an internet server and the user is able to vary or modify

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the video quality (resolution, bit-rate, etc) using a user interface program ([0008], [0009], [0017], [0029]). Said program gives the user different bit-rate levels and resolutions supported with that bit-rate ([0024], [0025]). Those displayed possible combinations of bit-rate and resolutions are calculated or established by either a program (user interface) that can be stored on the client or at the server ([0008], [0011], [0019], [0023]-[0025], . Also, that combination of bit-rate and resolutions shown to the user can be the available bit-rates and the different qualities of the files available at the server ([0031]-[0032]). Therefore, if the user interface is downloaded from the server and used to calculate the possible rates and resolutions, then the server sent information (user interface program) that indicates the user the possible bitrates and resolutions for the streamed video. Furthermore, if the user interface program is resident at the client, and a listing of bitrates and qualities available at the server for the streamed video is displayed to the user, then, inherently, a transmission of said information indicating the available bitrates and qualities from the server to the client needs to be performed. The initial quality level of the stream can be determined by the server, the user or automatically by the client ([0011], [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shoff's invention with Radford's feature of sending information from the server to the client to inform the user and the client of the available transfer information (streaming speeds and resolutions) for the benefit of "providing streamed data to users in a format appropriate to user's connection speed an

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that allows a user to actively control the quality of video being delivered”, (Radford, [0006]).

Regarding claims 3 and 31, Shoff and Radford teach wherein said control unit selects the transmission mode having a transmission rate lower than that of a maximum reception speed in which said reception unit can receive image data through said network **(Radford: [0011], [0022], [0025], [0029])**.

Regarding claims 29 and 34, Shoff and Radford teach wherein the event information further includes information discriminating the image data **(Shoff: the received information discriminates or identifies the supplemental information by including pointing out where it is located, layout information and timing information for specifying the start time of the supplemental content or to specify on what program frame the supplemental information has to be played with, col. 6 lines 7-48; col. 9 line 60-col. 10 line 17)**.

4. Claims **8 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoff et al. (hereinafter ‘Shoff’, Patent No. 6,240,555) in view of Radford et al. (hereinafter ‘Radford’, Pub. No. 2002/0144276) in further view of Ellison et al. (hereinafter ‘Ellison’, Patent No. 7,058,721, of record).

Regarding claims 8 and 32, Shoff and Radford teach all the limitations of the claims they depend on. On the other hand, Shoff and Radford do not explicitly teach having a buffer memory for storing the image data received by said reception unit and changes an amount of data to be stored in said buffer memory according to the transmission mode in which the transmission is requested to be performed.

However, in an analogous art, Ellison teaches a client device, which contains a buffer, that is able to dynamically change the quality of a streamed content and when changing the transmission rate or the quality of the video, additional information is sent down to the client to let know the timing when the buffer needs to be emptied for receiving the next frame for processing. This is based on the rate and quality at which the content is being transmitted (238, Table 2 on col. 10; 243, Table 4, col. 11; col. 16 line 32- col. 17 line 19; col. 18 lines 36-46).

Therefore, it would have been obvious to an ordinary skilled in the art at the time of the invention to have modified Shoff and Radford's invention with Ellison's feature of sending additional information to the decoder when the transmission rate is dynamically modified for the benefit of avoiding buffer overflow when processing.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR PARRA whose telephone number is (571)270-1449. The examiner can normally be reached on 9-6 PM (M-F, every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

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